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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,479	08/10/2004	Takao Kokubu	120323	2427

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EXAMINER
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NGUYEN, HOAI AN D

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/501,479	<b>Applicant(s)</b> KOKUBU ET AL.	
	<b>Examiner</b> Hoai-An D. Nguyen	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08/10/04 (the preliminary admendment).
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/10/04 (the preliminary admendment) is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/08/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuda et al. (US 4,844,469).

Yasuda et al. teach a golf trainer for calculating ball carry comprising:

With regard to claim 1, a measurement value output device (FIG. 2, golf trainer 1) comprising signal converting means (FIG. 8, Zero-crossing detectors 17b, 17c and 17d) for receiving a measurement value obtained by a meter or sensor (FIG. 8, magnetic sensors 6a, 6b, 6c and 6d) and converting it into a time width corresponding to the measurement value (Column 3, lines 50-63 and from column 4, line 25 to column 5, line 10) and measurement value output means (FIG. 8, display portion 2) for outputting an ON/OFF signal (the club head velocity, the carry, the face offset angle, the hitting position on the club face, the hitting direction and the distance from target are kept on the display) which is kept ON or OFF for a time corresponding to the above time width at predetermined time intervals (the period of time lasted until the next detected signals from the sensors) (FIG. 9 and Column 5, lines 11-39).

With regard to claim 3, a measurement value output device (FIG. 2, golf trainer 1) comprising a plurality of measurement value converters (FIG. 8, Zero-crossing detectors 17b,

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17c and 17d), each having signal converting means (FIG. 8, Zero-crossing detectors 17b, 17c and 17d) for receiving a measurement value obtained by a meter or sensor (FIG. 8, magnetic sensors 6a, 6b, 6c and 6d) and converting it into a time width corresponding to the measurement value (Column 3, lines 50-63 and from column 4, line 25 to column 5, line 10) and measurement value output means (FIG. 8, display portion 2) for outputting an ON/OFF signal (the club head velocity, the carry, the face offset angle, the hitting position on the club face, the hitting direction and the distance from target) which is kept ON or OFF for a time corresponding to the time width at predetermined time intervals, in order to output a plurality of the converted ON/OFF signals at predetermined time intervals sequentially (the period of time lasted until the next detected signals from the sensors) (FIG. 9 and Column 5, lines 11-39).

With regard to claim 6, current measuring means (FIG. 8, magnetic sensors 6a, 6b, 6c and 6d) for measuring a current running through a conductor (Column 3, lines 59-63) and ON/OFF signal output means (FIG. 8, display portion 2) for outputting an ON/OFF signal (the club head velocity, the carry, the face offset angle, the hitting position on the club face, the hitting direction and the distance from target) which is kept ON or OFF for a time corresponding to the measured current at predetermined time intervals (the period of time lasted until the next detected signals from the sensors) (FIG. 9 and Column 5, lines 11-39). Noted that current and voltage are related to each other by the well-known Ohm's law.

With regard to claim 7, a plurality of current value converters, each comprising current measuring means (FIG. 8, magnetic sensors 6a, 6b, 6c and 6d) for measuring a current running through a conductor (Column 3, lines 59-63) and ON/OFF signal output means (FIG. 8, display portion 2) for outputting an ON/OFF signal (the club head velocity, the carry, the face offset

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angle, the hitting position on the club face, the hitting direction and the distance from target) which is kept ON or OFF for a time corresponding to the measured current at predetermined time intervals, in order to output a plurality of the converted ON/OFF signals at predetermined time intervals sequentially (the period of time lasted until the next detected signals from the sensors) (FIG. 9 and Column 5, lines 11-39). Noted that current and voltage are related to each other by the well-known Ohm's law.

With regard to claim 8, a pulse signal (FIG. 1,  $Z_b$ ,  $Z_c$  and  $Z_d$ ) indicative of the measurement value is output before the ON/OFF signal (the club head velocity, the carry, the face offset angle, the hitting position on the club face, the hitting direction and the distance from target are computed from the  $Z_b$ ,  $Z_c$  and  $Z_d$ ) (Column 4, lines 25-61).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. in view of Tokura et al. (US 4,550,308).

Yasuda et al. teach all that is claimed as discussed in the above rejection of claims 1, 3 and 6-8, but they do not specifically teach the following:

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- The input signal switching means, which is connected to a plurality of meters or sensors, selects one from outputs from the meters or sensors and outputs it to the signal converting means is installed before the signal converting means.

However, Tokura et al. teach a signal converting apparatus comprising:

With regard to claim 2, the input signal switching means (FIG. 1, analog switching circuit 3), which is connected to a plurality of meters or sensors, selects one from outputs from the meters or sensors and outputs it to the signal converting means (FIG. 1, constant voltage supply  $V_{rl}$ , integrating circuit 4, comparators 5 and 6, and RS flip-flop 7), is installed before the signal converting means (FIG. 1, abstract, column 1, lines 6-11 and from column 2, line 35 to column 3, line 29).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the golf trainer for calculating ball carry of Yasuda et al. to incorporate the teaching of an input signal switching means installed before the signal converting means for selecting one from outputs from the meters or sensors and outputting it to the signal converting means taught by Tokura et al. since Tokura et al. teaches that such an arrangement is beneficial for selecting one of an input voltage to be converted as disclosed in abstract, column 1, lines 6-11 and from column 2, line 35 to column 3, line 29.

With regard to claim 4, Yasuda et al. also disclose a pulse signal (FIG. 1,  $Z_b$ ,  $Z_c$  and  $Z_d$ ) indicative of the measurement value is output before the ON/OFF signal (the club head velocity, the carry, the face offset angle, the hitting position on the club face, the hitting direction and the distance from target are computed from the  $Z_b$ ,  $Z_c$  and  $Z_d$ ) (Column 4, lines 25-61).

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5. Claims 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. in view of Reisman et al. (US 6,853,304).

Yasuda et al. teach all that is claimed as discussed in the above rejection of claims 1 and 6, and more particularly, the control of a display portion of a microprocessor controlled golf trainer, but they do not specifically teach the following:

- Monitoring means for monitoring the length of the ON time or OFF time of an ON/OFF signal output from the output device.
- Means of outputting a pulse signal when the ON time or OFF time of the ON/OFF signal is longer than a predetermined time, means of integrating the number of the output pulses, and alarm means for issuing a warning when the integrated number of pulses exceeds a predetermined value.

However, Reisman et al. teach a monitoring device comprising:

With regard to claims 5 and 9, monitoring means comprising a microprocessor (FIG. 4, microprocessor 50), which can be programmed with regard to various parameters in order to meet the requirements specific to the subject. Thus, parameters such as sampling intervals, data transmission intervals, monitored time periods (monitoring the length of the ON time or OFF time of an ON/OFF signal output from the output device), permitted and barred locations, etc., can be selected according to specific needs (FIG. 4, column 8, lines 6-61).

With regard to claim 10, the microprocessor (FIG. 4, microprocessor 50), which may also be programmed to change the time pattern of sampling (means of integrating the number of the output pulses) and broadcasting when specific circumstances are detected by the sensing means (outputting a pulse signal when the ON time or OFF time of the ON/OFF signal is longer than a

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predetermined time). For example, upon occurrence of a predetermined event, issue an alarm signal alarm (means for issuing a warning when the integrated number of pulses exceeds a predetermined value) and increase or decrease the testing rate (FIG. 4, column 8, lines 6-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the golf trainer for calculating ball carry of Yasuda et al. to incorporate the teaching of monitoring means taught by Reisman et al. since Reisman et al. teaches that such an arrangement is beneficial to provide an electronic data microprocessor for receiving and processing data for monitoring any occurrence of a predetermined event or specific circumstances as disclosed in column 8, lines 6-61.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant's attention is invited to the followings whose inventions disclose similar devices.

- Hobo et al. (US 4,134,258) teach a fuel control system.
- McKinley et al. (US 4,158,884) teach a gas turbine engine trim test set apparatus.
- Hartford et al. (US 4,255,789) teach a microprocessor-based electronic engine control system.
- Snyder et al. (US 4,749,878) teach an input device for control system.



### CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai-An D. Nguyen whose telephone number is 571-272-2170. The examiner can normally be reached on M-F (8:00 - 5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoai-An D. Nguyen  
Examiner  
Art Unit 2858  
HADN

HADN

*V. Nguyen*  
*5/03/2005*

VINCENT Q. NGUYEN  
PRIMARY EXAMINER